HIV and AIDS

Background

Scope of Problem:

Worldwide, the prevalence of HIV is estimated to be higher than ever before, with over 42 million children and adults infected, primarily in sub-Saharan Africa and in other developing countries. The World Health Organization and the Joint United Nations Programme on HIV/AIDS (UNAIDS) estimate that 16,000 children and adults are newly infected each day. No complete count of new HIV infections is available for the United States, but it is estimated that at least 900,000 people have HIV in the U.S., with 35,000 to 40,000 new infections occurring each year. Half are among individuals under the age of 25.

AIDS is a specific group of diseases or conditions that result from severe immunosuppression caused by infection with HIV. The late-stage presentation of HIV disease, AIDS, reflects the prolonged, severe destruction of vital immune cells that would normally generate an immune response and provide protection in the body.

By the end of December 2000, 54,447 Texans had been diagnosed with AIDS since the start of the epidemic in the early 1980s. At least 29,807 of these individuals died from the disease (a cumulative case-fatality rate of 55% for Texas). Texas ranks fourth highest in the US, with 2,790 AIDS cases reported in 2000. The overall rate for Texas in 2000 was 13.7 AIDS cases per 100,000 population (Table 1).

Table 1. AIDS Cases Reported in 2000 by Sex and

Race *

Sex/Race	Cases	%**	Cases per 100,000 (rate)
Males			**22.1**
White	892	40	16.4
African American	704	32	63.3
Hispanic	607	27	19.0
All Others	16	<1	5.1
Females			**5.5**
White	134	23	2.4
African American	338	59	28.1
Hispanic	94	16	3.0
All Others	5	<1	1.6
Total Cases	**2,790**	**100.0**	**13.7 (rate)**

* The category *All Others* includes any racial/ethnic group not listed as well as those cases not specifying race. Therefore, a rate is not calculated.

**Percentages may not total 100% due to rounding.

For Texas males, the 2000 AIDS rate, (22.1/100,000), remained much higher than the female AIDS rate (5.5/100,000). The Texas male HIV rate for 2000 was 31.5 cases per 100,000 population, while the female HIV rate of 12.2 cases per 100,000 population demonstrated the increasing spread of new infections among women (Table 2).

Table 2. HIV Cases Reported in 2000 by Sex and Race *

Sex/Race	Cases	%**	Cases per 100,000 (rate)
Males			**31.5**
White	1393	44	25.7
African American	1082	34	97.3
Hispanic	667	21	21.2
All Others	27	<1	8.7
Females			**12.2**
White	288	23	5.1
African American	754	60	62.7
Hispanic	211	17	6.8
All Others	6	<1	1.9
Total Cases	**4,428**	**100.0**	**21.8 (rate)**

* The category *All Others* includes any racial/ethnic group not listed as well as those cases not specifying race. Therefore, a rate is not calculated.

**Percentages may not total 100% due to rounding.

Epidemiology of HIV

Some groups are at higher risk of contracting HIV: youths from 13 through 24 years of age, African-Americans, male to male sexual exposure, drug users (IDU) and their partners, and heterosexuals who have multiple partners. HIV can be transmitted by blood or bodily fluids. HIV risk is elevated if either sexual partner has a history of sexually transmitted diseases (STDs). Transmission of HIV can be prevented, in part, by abstaining from high-risk sex (including unprotected oral sex).[1] Officials with the Centers for Disease Control and Prevention (CDC) emphasize that a much higher prevalence of HIV co-infection exists among persons with any STD than among those without STDs or a history of STDs. HIV transmission is enhanced when other sexually transmitted diseases, (ie, syphilis, gonorrhea, herpes, chlamydia), are present.

Alcohol or drug use (such as crack cocaine) often is associated with riskier sexual practices. Former Surgeon General Antonia Novello stated in a news conference that,

> "For teens, alcohol use is the best predictor for early sexual activity and failure to use contraception. Alcohol use, more than any other single factor, is responsible for more pregnancies, sexually transmitted diseases, and more HIV infections".[2]

Additionally, transmission of HIV can be prevented by avoiding injection of street (illicit) drugs. Intravenous drug-using populations (IDUs) often share needles, cookers, and cotton filters which are contaminated with blood, thus allowing transmission of HIV. The sexual partners of IDU's are also at increased risk of infection with HIV.

Diagnosing primary HIV infection remains a challenge for clinicians since no distinctive symptom is sensitive or specific enough to diagnose this syndrome. The most consistent presenting symptoms are rash, fever, night sweats, myalgia and arthralgia (muscle and joint pain). Viral load testing can be used to diagnose primary (acute) HIV infection prior to antibody production.[3] However, more recently, researchers have recommended using the p24 antigen test to decrease false positives that may occur with HIV RNA testing.[4]

Several outbreaks of syphilis or gonorrhea, and increasing HIV infections in recent months, (Australia, Canada, San Francisco, Miami, Europe) indicate a loss of concern over contracting and transmitting the virus to others. Officials warn that many people are still not accessing new medications, and risky behaviors appear to be resuming, particularly among young gay men.[5] This is of grave concern to all public

health officials including the CDC which has initiated a new strategy, called SAFE (Serostatus Approach to Fighting the HIV Epidemic) to address the control of the HIV epidemic. [6]

The TDH Bureau of HIV/STD Prevention Field Operations Branch works closely with HIV/STD service providers statewide, to ensure compliance with State and federal (CDC) standards of care, education, counseling and testing, and follow-up for HIV/AIDS and STD's.

Supporting Statistics

The rate of reported AIDS cases in 2000 among Texas' African-Americans (45.3/100,000) was more than four times higher than the rates for whites (9.2/100,000) or Hispanics (11.1/100,000, Table 1).

Although the Texas case rate for females was 5.5 AIDS cases per 100,000, the African-American female rate was more than 5 times higher: 28.1 cases per 100,000. The Hispanic and the white female rates were lower: 3.0 cases per 100,000 and 2.4 cases per 100,000, respectively. The Texas African-American male population had the highest rate, 63.3 cases per 100,000, followed by Hispanic males at 19.0 cases per 100,000 and white males at 16.4 cases per 100,000 (Figure 1).

Figure 1: AIDS Case Rates by Race/Ethnicity, Texas, 1985-2000
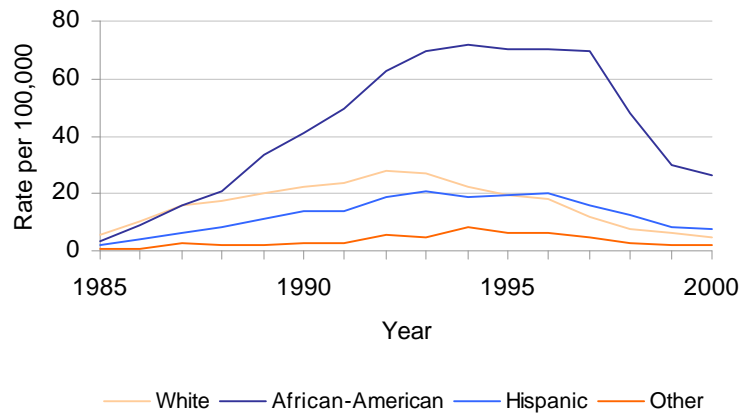
HIV data clearly demonstrate the recent spread of the epidemic to females, heterosexuals, and minorities. The rate of reported HIV cases in 2000 among African-Americans in Texas (79.3/100,000) was more than 5 times higher than the rates for whites (15.1/100,000) or Hispanics (13.9/100,000). Although the Texas case rate for all females was 12.2 cases per 100,000, the African-American female rate was significantly higher at 62.7 per 100,000 (Table 2). The Hispanic and the white female rates were lower: 6.8 cases per 100,000 and 5.1 cases per 100,000, respectively. Among Texas males, the African-American male population had the highest HIV rate, 97.3 cases per 100,000, followed by white males at 25.7 cases per 100,000 and Hispanic males at 21.2 cases per 100,000.

Higher than in previous years, the male to male exposure category constituted over half (52.3%) of the year 2000 AIDS cases among Texas men. Additionally, injecting drug use was the most likely route of transmission for 12.1% of men reported with AIDS. The combination of male-to-male sex and

IDU constituted 7.3% of the cases among males, and the heterosexual route of transmission was reported for 5.4% of men with AIDS. Among women, the exposure category "heterosexual contact" was determined for 33.6% and the use of injecting drugs was the mode of exposure for 26.1%. A higher percentage of cases among women (37.7) than men (21.9%) had an unknown mode of exposure. For both sexes, the percentage of cases that remain unknown will decrease as the investigations of risk are completed. However, due to the definition of "Heterosexual Contact" used by the CDC, many heterosexually acquired infections remain categorized as "Not Classified". Only those individuals whose risk for HIV infection is heterosexual sex with a known HIV infected partner are classified as "Heterosexually Acquired". Those individuals whose risk is heterosexual sex with multiple partners whose HIV status is unknown remain "Not Classified".

For HIV infections, the male to male exposure category also constituted more than half (53.6%) of HIV cases among Texas men (Figure 4). Additionally, injecting drug use was the most likely route of transmission for 11.5% of men reported with HIV. The combination of male-to-male sex and IDU constituted 7.6% of the HIV cases among males, and the heterosexual route of transmission was reported for 6.2% of men with HIV. Among women, the exposure category "heterosexual contact" was determined for 36.2% and the use of injecting drugs was designated as the mode of exposure for 22%. As with AIDS cases, a higher percentage of HIV cases among women (41%) than men (21%) were initially

unclassified as to mode of exposure. Many of these likely represent heterosexually acquired cases.

Dallas County demonstrated the highest rate (27.1), followed by Travis County (Austin) at 26.9/100,000. Harris County rate was lower at 21.8, followed by Tarrant (12.1), Bexar (11.9), and El Paso County at 10.5 cases per 100,000 population. Travis County AIDS rates continue to outpace Harris County. Additionally, Tarrant County AIDS rates have surpassed Bexar and El Paso County rates for 2000. In 2000, 121 counties, (out of the 254 in Texas), reported at least one AIDS case. Although still centered mainly in the metropolitan areas of the state, the HIV epidemic continues to spread to more rural areas, requiring all counties face the challenges of providing prevention education, health care, and services.

Dallas County demonstrated the highest HIV rate, (40.6/100,000), followed by Harris (38.2), Travis (37.8), and Bexar (20.5) counties. The rates for Tarrant and El Paso Counties were 17.7 and 7.1 cases per 100,000 population, respectively. In 2000, 136 counties,(out of the 254 in Texas), reported at least one new HIV case. The Texas Department of Criminal Justice reported 7.4% of all 2000 HIV cases (329).

Both AIDS rates and HIV rates for Hispanics, whites, and African-Americans in the Texas border counties have been lower than their counterparts in the non-border counties of Texas. The African-American population traditionally has been very small in the border region. HIV and AIDS are still centered primarily in the larger cities.

The age group with the highest cases of HIV is the 13 to 24 year old age group.

Consequently, all the symptomatology of AIDS is demonstrated most predominately in

the 30 to 39 year old age group (see Figure 2).

Figure 2: Texas AIDS Cases Reported by Age
Group, 2000
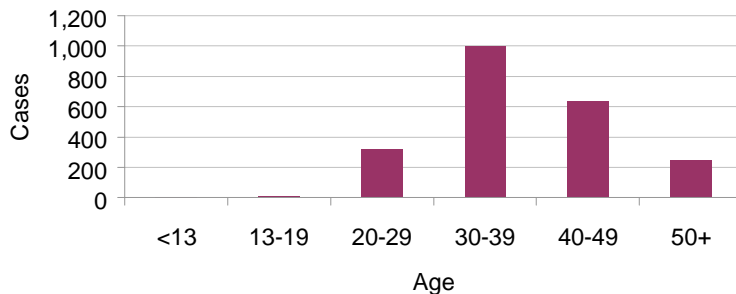
Basic Facts of HIV/AIDS:
- HIV infection represents recent infections. AIDS data represents infections that may have occurred 10-18 years ago.

- The African-American community has a disproportionate share of the burden of HIV and AIDS.

- 60% of the HIV and AIDS infections among women are in African-American women.

- The 13 to 24 year old age group is most affected by HIV, while the 30 to 39 year old age group represents the highest cases of AIDS (10-18 years later).

- Distrust of government information concerning HIV/AIDS is more prevalent among African-Americans (1998 HIV Infection Testing Survey data).

- Male to male sex is still the main mode of transmission for HIV and AIDS.

- Some people and high-risk groups think that AIDS is now curable. Others are tired of hearing the "safe-sex" messages. Still others believe that using condoms implies infidelity.

Relevant TDH Activities

Local/Regional Community Planning Groups (CPG's) throughout Texas determine the priority prevention needs (for HIV/AIDS) of the area. In Texas, HIV prevention planning is a multi-year endeavor, with 5 phases:

1. Creation of an epidemic profile

2. Needs and resource assessment

3. Creation of community-level plans, including prioritization of populations and interventions

4. Implementation of the plans

5. Update and review of the plans

First, CPGs familiarize themselves with the HIV Epidemic profile that TDH provides. This profile contains morbidity information from HARS (AIDS and HIV cases) and STD*MIS (primary & secondary syphilis, gonorrhea and chlamydia cases) and risk profiles based on HIV prevention counseling reports provided by current TDH contractors. The CPGs review this information, and develop needs assessments and resource inventories to decide needs and additional risk information about at-risk populations.

Second, the CPGs take this information, to develop a plan which describes specific target populations through behavior, sex, race or ethnic group and/or age group. For each target population, the CPG identifes risk behaviors and factors which influence those behaviors, and identifies interventions that will address those risk behaviors.

Third, TDH takes the Area Action Plan (AAP) and develops a Request for Proposal, reviews proposals, identifies Community Based Organizations with capacity to perform the work proposed, negotiates, and awards contracts.

The agency then carries out the interventions, monitors implementation, assesses outcomes for their interventions, and refines methods for implementation as needed based on outcome and implementation monitoring. TDH notifies the regional coordinators and field operations consultants for their review of sound documentation and final approval for operational changes.

Based on outcome monitoring and implementation issues, TDH may recommend to CPGs that additional interventions be offered or they may identify or remove additional target populations from the current plan. This then goes to the CPG for discussion and refinement of the community plan. CPGs can also determine if new interventions and target populations are appropriate to be included in plans in future years based on continued needs assessment and resource inventory results.

There are four main objectives of community planning:

- Identify populations at risk for HIV, based primarily on risk behaviors.

- Set priorities in the populations identified above based on morbidity, risk, needs and resources available.

- For each risk population, identify appropriate interventions based on morbidity, risk and needs assessments.

- Set priorities by specifying interventions identified within each priority target population based on Risk and Needs Assessments.

The goal for community planning is to provide specific interventions for specific populations with immediate outcomes specified for each intervention that are logical and appropriate.

Statistics on Prevention Program Activities:

- In 2000, African-Americans made up about 35% of the Bureau of HIV/STD Prevention's funded HIV Prevention Health Education/Risk Reduction contacts, followed by whites, (33%), and Hispanics (32%). In 2000, a total of 455,000 contacts were reported (counseling).

- In 2000, 35.6% of the HIV tests that TDH funded with HIV prevention dollars were done for Whites, 33.8% were done for Hispanics, and 28.6% were done for African-Americans.

- In 2000, 51% of the tests were done for men, and 49% were done for women.

Resources

Texas Dept. of Health: www.tdh.state.tx.us/hivstd and

    http://www.tdh.state.tx.us/epidemiology

Gay Men's Health Crisis Organization : http://www.gmhc.org   ()

Epimonitor: http://www.epimonitor.net

Centers for Disease Control and Prevention: http://www.cdc.gov

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